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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF

Group Art Unit: 1714

FRANÇOIS GUGUMUS

Examiner: V. Hoke

APPLICATION NO: 09/811,960

FILED: MARCH 19, 2001

FOR: STABILIZER MIXTURE

Assistant Commissioner for Patents

Washington, D.C. 20231

**PRELIMINARY AMENDMENT**

Sir:

Applicant presents this Preliminary Amendment in this continuation application to put the instant claims in better condition for examination on their merits. Pending claims in the parent application, application Ser. No. 09/811,960, are rejected in an Office Action, Paper No. 4, dated October 2, 2001. The action set a shortened statutory period of three months to respond, which due date is January 2, 2002. A petition for a <sup>three</sup> ~~three~~ (2) month extension of time to respond is submitted to make the parent co-pending with this continuation application.

## In the Specification

Please insert the following new paragraph on page 1 of the specification after the title (between lines 1 and 2):

This is a continuation of application Ser. No. 09/811,960, filed March 19, 2001, which is a continuation of application Ser. No. 09/211,197, filed Dec. 14, 1998.

## In the Claims

Cancel claims 1-13 (all claims).

Please add the following new claims:

**14. (new)** A stabilizer mixture which comprises

(A) a sterically hindered amine compound, and

(B) two different compounds selected from the group consisting of an organic salt of Mg and an inorganic salt of Mg;

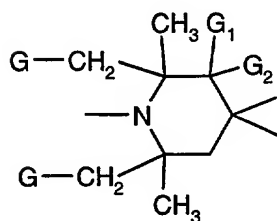
the weight ratio of the two different compounds being 1:10 to 10:1;

with the provisos that

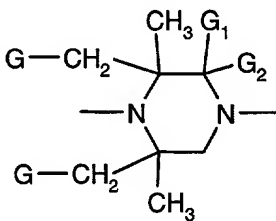
(1) the stabilizer mixture is essentially free of perchloric acid, and

(2) the stabilizer mixture is also essentially free of perchlorate.

**15. (new)** A stabilizer mixture according to claim 14 wherein the sterically hindered amine compound corresponds to a compound containing at least one group of the formula (I) or (II)



(I),

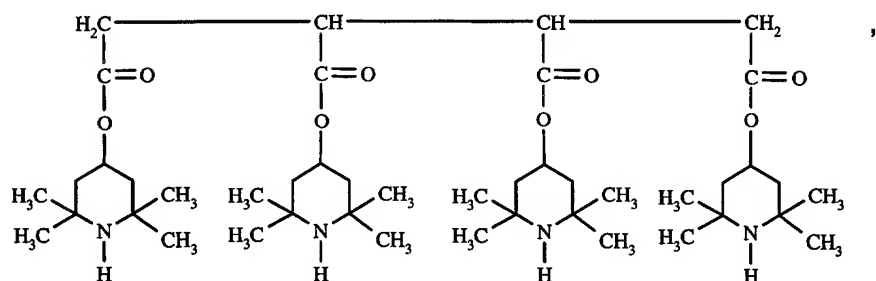
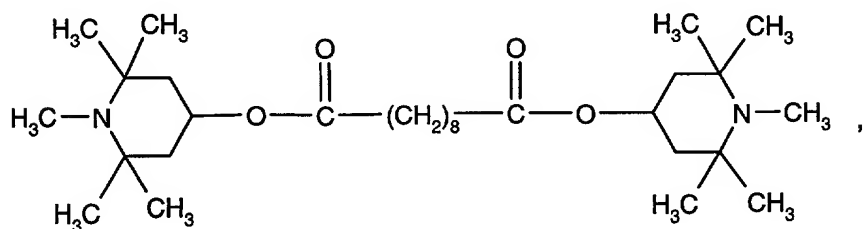
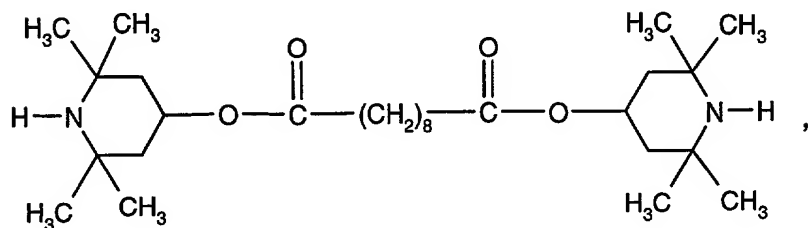
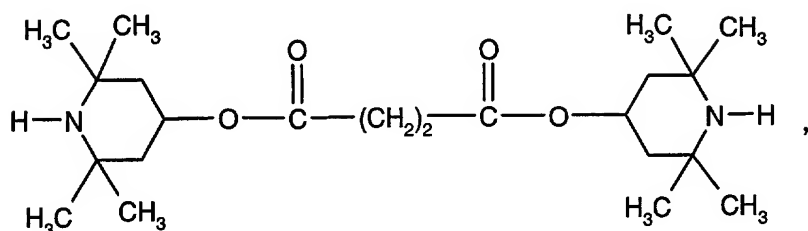
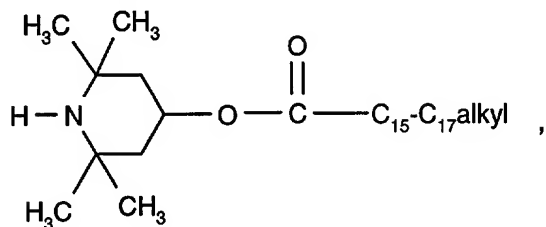


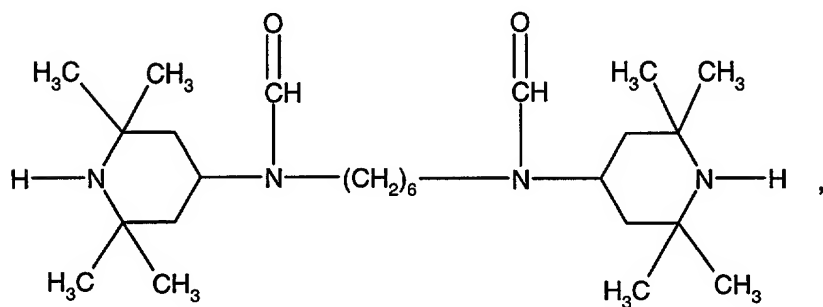
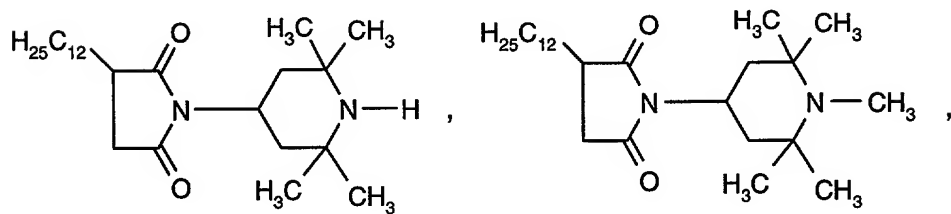
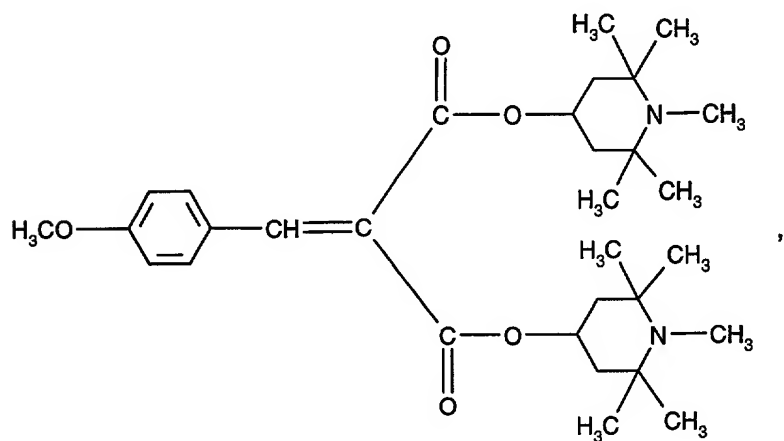
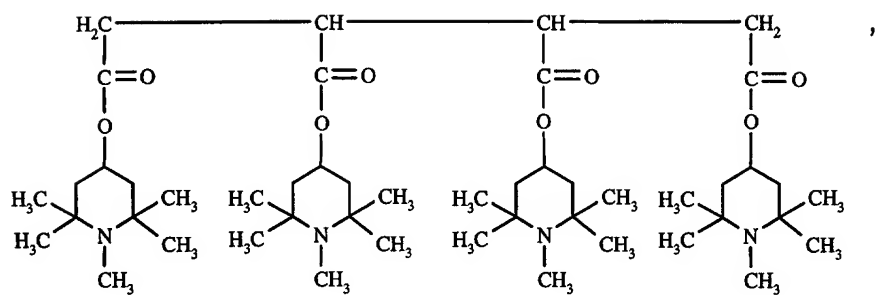
(II)

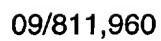
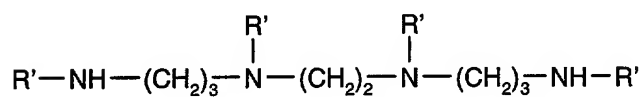
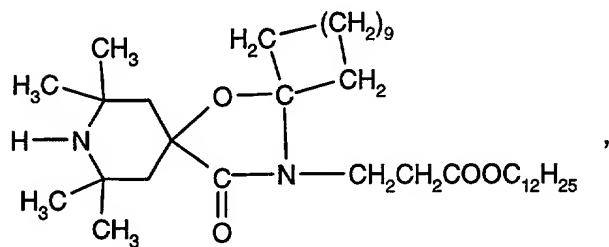
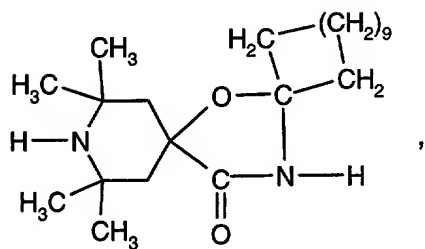
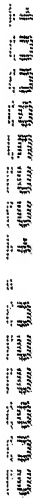
in which G is hydrogen or methyl, and

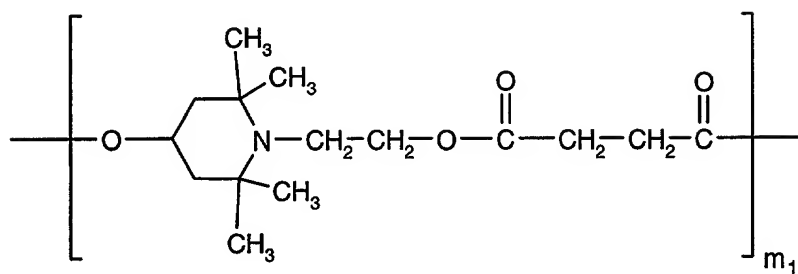
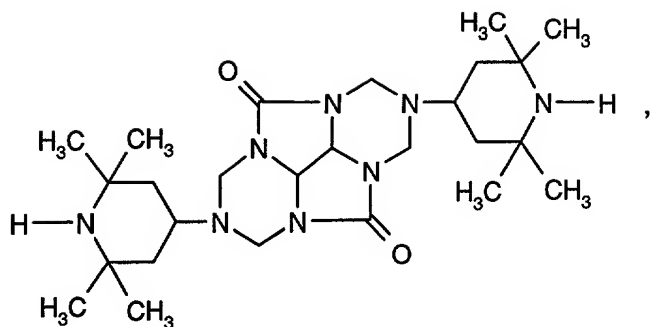
G<sub>1</sub> and G<sub>2</sub>, independently of one another, are hydrogen, methyl or together are a substituent =O.

16. (new) A stabilizer mixture according to claim 14 wherein the sterically hindered amine compound corresponds to

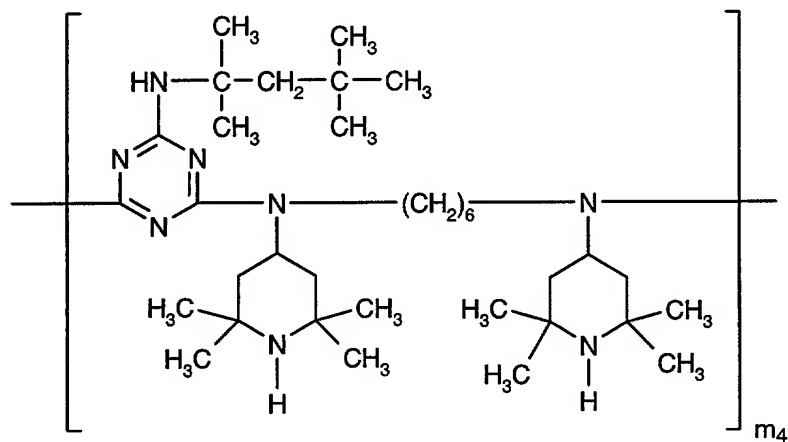




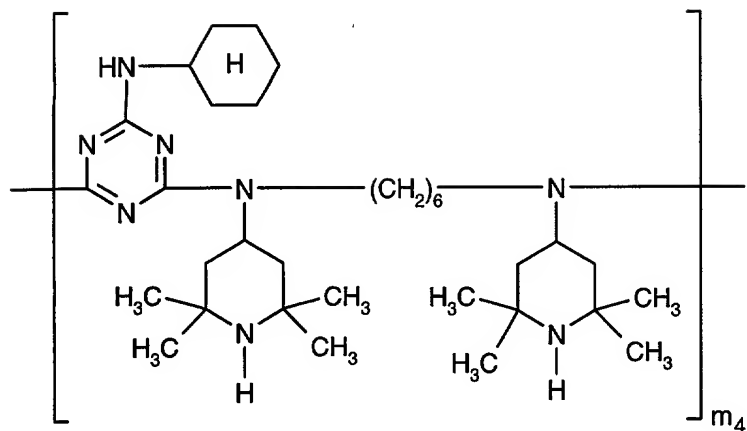




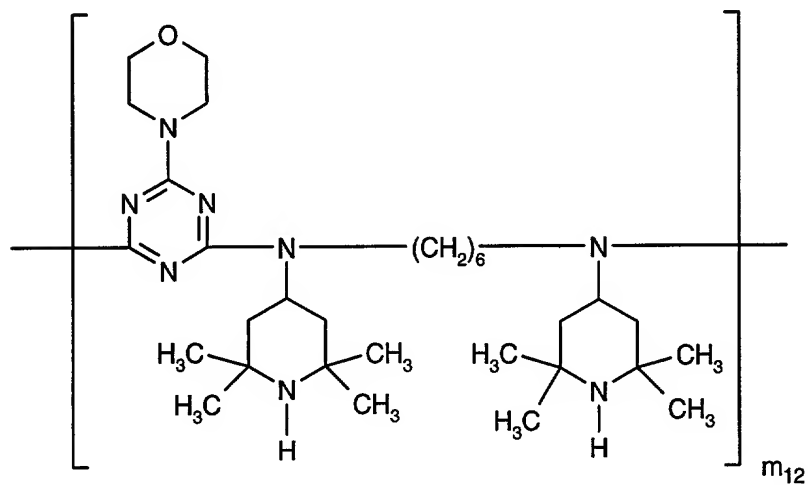
with  $m_1$  being a number from 2 to 50,



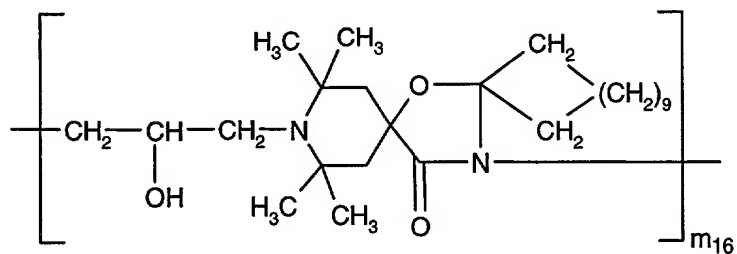
with  $m_4$  being a number from 2 to 50,



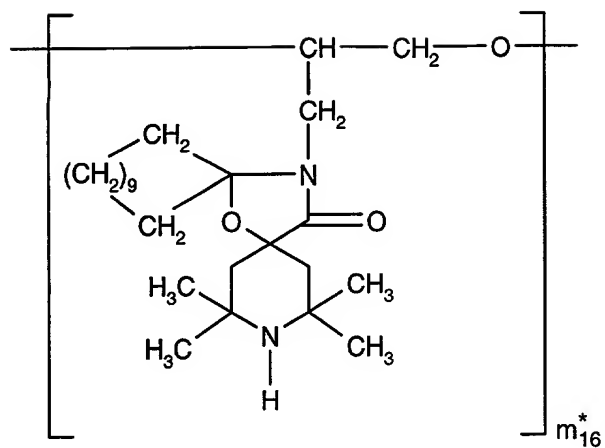
with  $m_4$  being a number from 2 to 50,



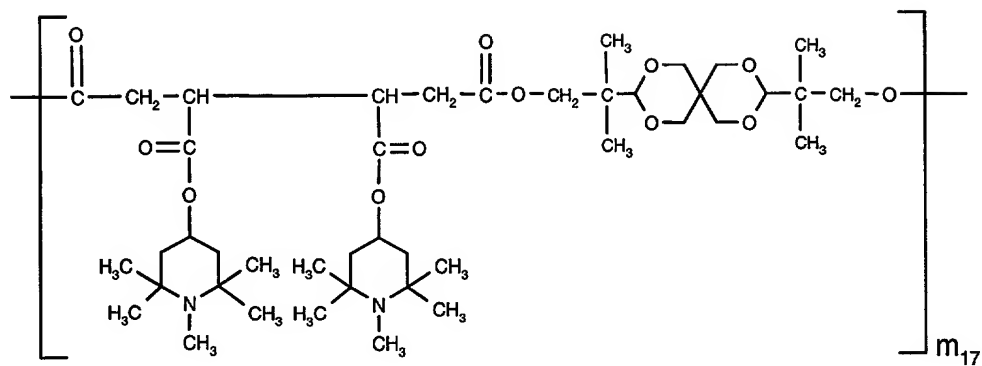
with  $m_4$  being a number from 2 to 50,



with  $m_{16}$  being a number from 2 to 50,

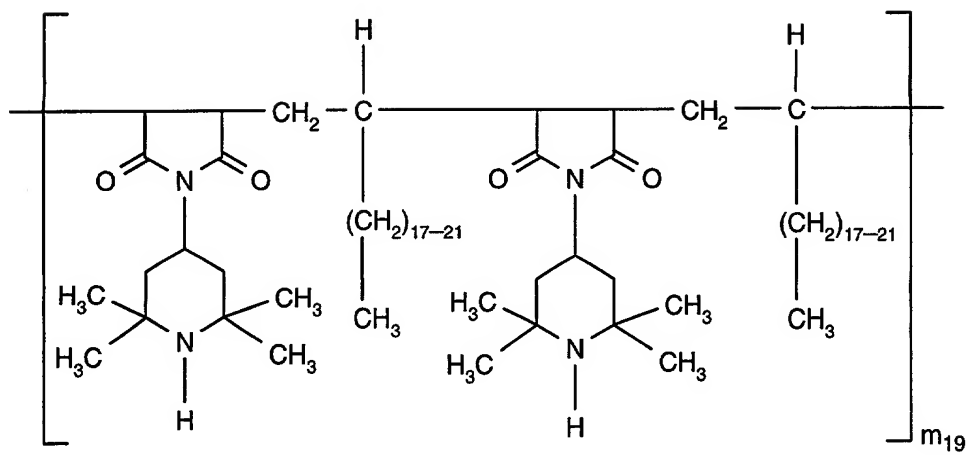


with  $m_{16}^*$  being a number from 2 to 50,

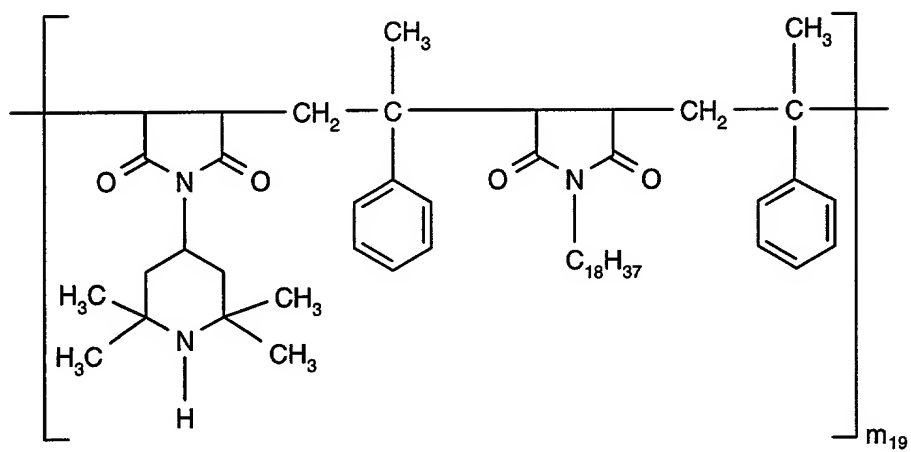


with  $m_{17}$  being a number from 1 to 50,

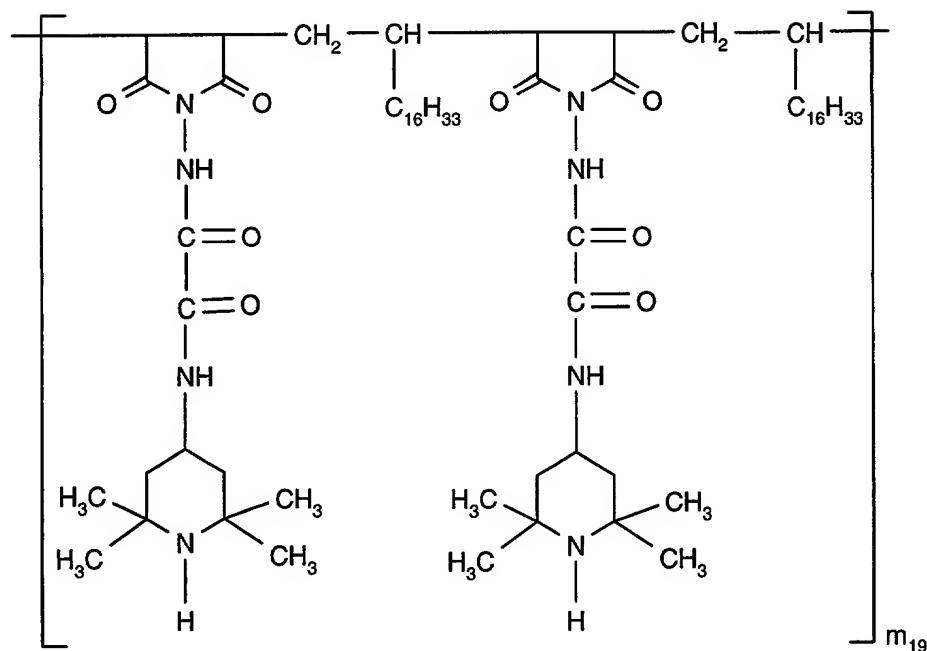




with  $m_{19}$  being a number from 1 to 50,

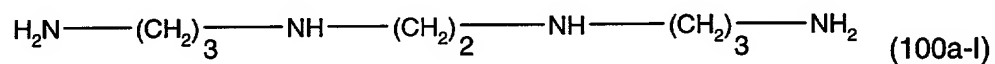


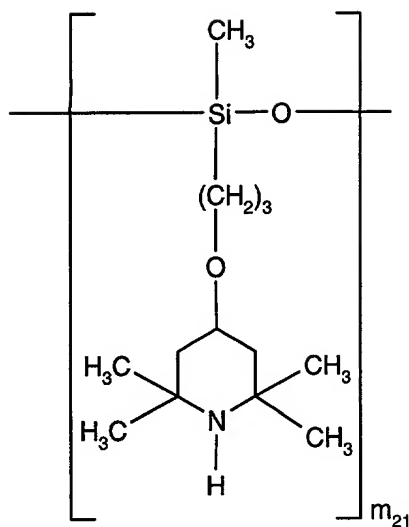
with  $m_{19}$  being a number from 1 to 50,



with  $m_{19}$  being a number from 1 to 50,

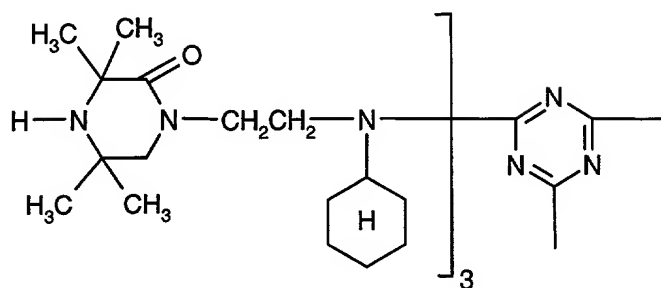
a product obtainable by reacting an intermediate product, obtained by reaction of a polyamine of the formula (100a-I) with cyanuric chloride, with a compound of the formula (100b-I),



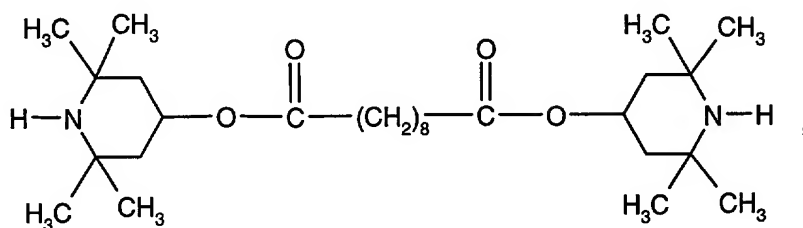


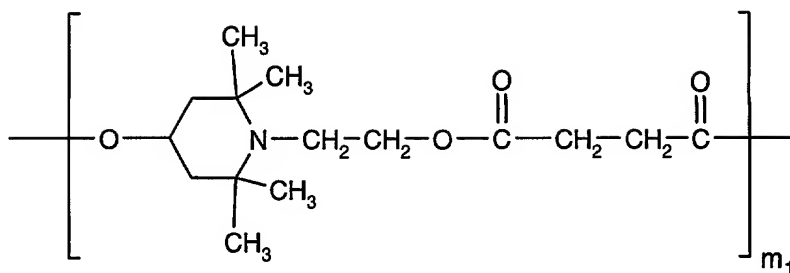
with  $m_{21}$  being a number from 1 to 50,

or

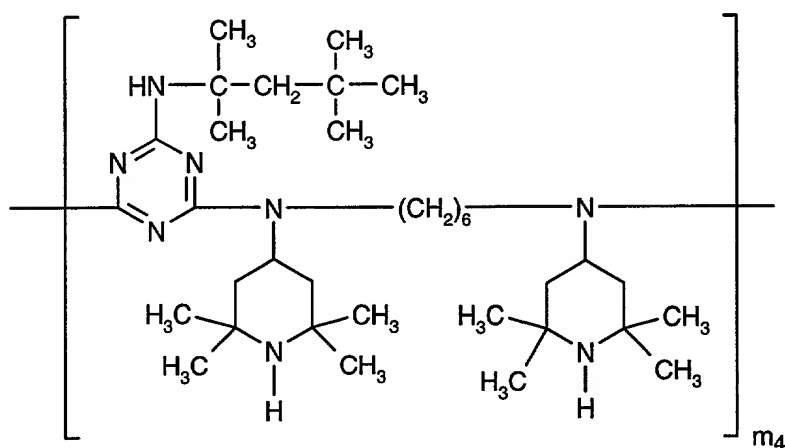


**17. (new)** A stabilizer mixture according to claim 16 wherein the sterically hindered amine compound is





with  $m_1$  being a number from 2 to 50, or



with  $m_4$  being a number from 2 to 50.

**18. (new)** A stabilizer mixture according to claim 14, containing additionally

- (C1) a pigment or
- (C2) an UV absorber or
- (C3) a pigment and an UV absorber.

**19. (new)** A stabilizer mixture according to claim 18 wherein the pigment is titanium dioxide, zinc oxide, carbon black, cadmium sulfide, cadmium selenide, chromium oxide, iron oxide, lead oxide, an azo pigment, an anthraquinone, a phthalocyanine, a tetrachloroisindolinone, a quinacridone, an isoindoline, a perylene or a pyrrolopyrrole.

**20. (new)** A stabilizer mixture according to claim 18 wherein the UV absorber is

a 2-(2'-hydroxyphenyl)benzotriazole, a 2-hydroxybenzophenone, an ester of substituted or unsubstituted benzoic acid, an acrylate, an oxamide, a 2-(2-hydroxyphenyl)-1,3,5-triazine, a monobenzoate of resorcinol or a formamidine.

**21. (new)** A stabilizer mixture according to claim 14 which additionally contains an organic salt of Ca or an inorganic salt of Ca.

**22. (new)** A composition comprising

- (a) a synthetic polymer subject to degradation induced by light, heat or oxidation, and
- (b) an effective stabilizing amount of a stabilizer mixture containing

(A) a sterically hindered amine compound, and

(B) two different compounds selected from the group consisting of an organic salt of Zn, an inorganic salt of Zn, an organic salt of Mg and an inorganic salt of Mg; the weight ratio of the two different compounds being 1:10 to 10:1; with the provisos that

- (1) the composition is essentially free of perchloric acid;
- (2) the two compounds of component (B) are different from the combination of ZnO and Zn stearate and the combination of ZnO and hydrotalcite; and
- (3) the synthetic polymer is not a chlorine-containing polymer.

**23. (new)** A composition according to claim 22 wherein

the two different compounds of component (B) are selected from the group consisting of hydrotalcite, dolomite, Zn-hydroxide-carbonate, Mg-hydroxide-carbonate, Zn-oxide, Mg-oxide, Zn-hydroxide, Mg-hydroxide, Zn-stearate, Mg-stearate, Zn-acetylacetonate, Mg-acetylacetonate, Zn-acetate and Mg-acetate.

**24. (new)** A composition according to claim 22 wherein the two different compounds in component (B) are

Mg-stearate and hydrotalcite,  
Zn-stearate and hydrotalcite,  
Mg-stearate and Zn-stearate,  
Zn-stearate and Mg-oxide, or  
Mg-stearate and Mg-hydroxide.

**25. (new)** A composition according to claim **24** wherein the two different compounds in component (B) are Mg-stearate and hydrotalcite.

**26. (new)** A composition according to claim **22** wherein the organic material is a polyolefin.

**27. (new)** A composition according to claim **22** wherein the organic material is polyethylene, polypropylene, a polyethylene copolymer or a polypropylene copolymer.

**28. (new)** A method for stabilizing a synthetic polymer subject to degradation induced by light, heat or oxidation, which comprises

incorporating into the synthetic polymer an effective stabilizing amount of a stabilizer mixture containing

(A) a sterically hindered amine compound, and

(B) two different compounds selected from the group consisting of an organic salt of Zn, an inorganic salt of Zn, an organic salt of Mg and an inorganic salt of Mg;

the weight ratio of the two different compounds being 1:10 to 10:1;

with the provisos that

(1) the synthetic polymer is essentially free of perchloric acid;

(2) the two compounds of component (B) are different from the combination of ZnO and Zn stearate and the combination of ZnO and hydrotalcite; and

(3) the synthetic polymer is not a chlorine-containing polymer.

**Remarks**

Claims 1-13 are cancelled. New claims 14-28 are presented for examination. Claims 14-28 are the only claims in this continuation application. Claims 14, 22 and 28 are independent claims. Claims 14-28 correspond to claims 1, 2, 3, 16, 6, 7, 8, 9, 14, 4, 5, 17, 11, 12 and 15, respectively, from the parent application. No new matter is added as result of any of the present amendments.

Respectfully submitted,



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